

12/2

#2 OIPE

RAW SEQUENCE LISTING
PATENT APPLICATION: US/09/995,593

DATE: 12/06/2001 P.S
TIME: 11:51:35

Input Set : A:\9-068740.app
Output Set : N:\CRF3\12062001\I995593.raw

ENTERED

3 <110> APPLICANT: SAKANO, SEIJI
4 ITOH, AKIRA
6 <120> TITLE OF INVENTION: DIFFERENTIATION-SUPPRESSIVE POLYPEPTIDE
8 <130> FILE REFERENCE: KP-8447
C--> 10 <140> CURRENT APPLICATION NUMBER: US/09/995,593
C--> 11 <141> CURRENT FILING DATE: 2001-11-29
13 <150> PRIOR APPLICATION NUMBER: JP 7-299611
14 <151> PRIOR FILING DATE: 1995-11-17
16 <150> PRIOR APPLICATION NUMBER: JP 7-311811
17 <151> PRIOR FILING DATE: 1995-11-30
19 <150> PRIOR APPLICATION NUMBER: PCT/JP96/03356
20 <151> PRIOR FILING DATE: 1996-11-15
22 <160> NUMBER OF SEQ ID NOS: 48
24 <170> SOFTWARE: PatentIn Ver. 2.1
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 43
28 <212> TYPE: PRT
29 <213> ORGANISM: Homo sapiens
31 <220> FEATURE:
32 <221> NAME/KEY: UNSURE
33 <222> LOCATION: (2)..(4)
34 <223> OTHER INFORMATION: Xaa is unknown
36 <220> FEATURE:
37 <221> NAME/KEY: UNSURE
38 <222> LOCATION: (7)..(9)
39 <223> OTHER INFORMATION: Xaa is unknown
41 <220> FEATURE:
42 <221> NAME/KEY: UNSURE
43 <222> LOCATION: (11)..(13)
44 <223> OTHER INFORMATION: Xaa is unknown
46 <220> FEATURE:
47 <221> NAME/KEY: UNSURE
48 <222> LOCATION: (20)
49 <223> OTHER INFORMATION: Xaa is unknown
51 <220> FEATURE:
52 <221> NAME/KEY: UNSURE
53 <222> LOCATION: (24)..(25)
54 <223> OTHER INFORMATION: Xaa is unknown
56 <220> FEATURE:
57 <221> NAME/KEY: UNSURE
58 <222> LOCATION: (27)..(29)
59 <223> OTHER INFORMATION: Xaa is unknown
61 <220> FEATURE:
62 <221> NAME/KEY: UNSURE
63 <222> LOCATION: (31)..(33)
64 <223> OTHER INFORMATION: Xaa is unknown
66 <220> FEATURE:

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/995,593

DATE: 12/06/2001

TIME: 11:51:35

Input Set : A:\9-068740.app

Output Set: N:\CRF3\12062001\I995593.raw

```

67 <221> NAME/KEY: UNSURE
68 <222> LOCATION: (35)..(36)
69 <223> OTHER INFORMATION: Xaa is unknown
71 <220> FEATURE:
72 <221> NAME/KEY: UNSURE
73 <222> LOCATION: (39)
74 <223> OTHER INFORMATION: Xaa is unknown
76 <220> FEATURE:
77 <221> NAME/KEY: UNSURE
78 <222> LOCATION: (41)..(42)
79 <223> OTHER INFORMATION: Xaa is unknown
81 <400> SEQUENCE: 1
W--> 82 Cys Xaa Xaa Xaa Tyr Tyr Xaa Xaa Xaa Cys Xaa Xaa Xaa Cys Arg Pro
83      1          5          10          15
W--> 85 Arg Asx Asp Xaa Phe Gly His Xaa Xaa Cys Xaa Xaa Xaa Gly Xaa Xaa
86      20          25          30
W--> 88 Xaa Cys Xaa Xaa Gly Trp Xaa Gly Xaa Xaa Cys
89      35          40
92 <210> SEQ ID NO: 2
93 <211> LENGTH: 200
94 <212> TYPE: PRT
95 <213> ORGANISM: Homo sapiens
97 <400> SEQUENCE: 2
98 Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe Val Asn Lys Lys Gly
99      1          5          10          15
101 Leu Leu Gly Asn Arg Asn Cys Cys Arg Gly Gly Ala Gly Pro Pro Pro
102      20          25          30
104 Cys Ala Cys Arg Thr Phe Phe Arg Val Cys Leu Lys His Tyr Gln Ala
105      35          40          45
107 Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly Ser Ala Val Thr Pro
108      50          55          60
110 Val Leu Gly Val Asp Ser Phe Ser Leu Pro Asp Gly Gly Gly Ala Asp
111      65          70          75          80
113 Ser Ala Phe Ser Asn Pro Ile Arg Phe Pro Phe Gly Phe Thr Trp Pro
114      85          90          95
116 Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His Thr Asp Ser Pro Asp
117      100         105         110
119 Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile Ser Arg Leu Ala Thr
120      115         120         125
122 Gln Arg His Leu Thr Val Gly Glu Glu Thr Ser Gln Asp Leu His Ser
123      130         135         140
125 Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr Arg Phe Val Cys Asp Glu
126      145         150         155         160
128 His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys Arg Pro Arg Asp Asp
129      165         170         175
131 Ala Phe Gly His Phe Thr Cys Gly Glu Arg Gly Glu Lys Val Cys Asn
132      180         185         190
134 Pro Gly Trp Lys Gly Pro Tyr Cys
135      195         200

```

RAW SEQUENCE LISTING

DATE: 12/06/2001

PATENT APPLICATION: US/09/995,593

TIME: 11:51:35

Input Set : A:\9-068740.app

Output Set: N:\CRF3\12062001\I995593.raw

```

138 <210> SEQ ID NO: 3
139 <211> LENGTH: 520
140 <212> TYPE: PRT
141 <213> ORGANISM: Homo sapiens
143 <400> SEQUENCE: 3
144 Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe Val Asn Lys Lys Gly
145   1           5           10           15
147 Leu Leu Gly Asn Arg Asn Cys Cys Arg Gly Gly Ala Gly Pro Pro Pro
148           20           25           30
150 Cys Ala Cys Arg Thr Phe Phe Arg Val Cys Leu Lys His Tyr Gln Ala
151           35           40           45
153 Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly Ser Ala Val Thr Pro
154           50           55           60
156 Val Leu Gly Val Asp Ser Phe Ser Leu Pro Asp Gly Gly Gly Ala Asp
157   65           70           75           80
159 Ser Ala Phe Ser Asn Pro Ile Arg Phe Pro Phe Gly Phe Thr Trp Pro
160           85           90           95
162 Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His Thr Asp Ser Pro Asp
163           100          105          110
165 Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile Ser Arg Leu Ala Thr
166           115          120          125
168 Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser Gln Asp Leu His Ser
169           130          135          140
171 Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr Arg Phe Val Cys Asp Glu
172   145          150          155          160
174 His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys Arg Pro Arg Asp Asp
175           165          170          175
177 Ala Phe Gly His Phe Thr Cys Gly Glu Arg Gly Glu Lys Val Cys Asn
178           180          185          190
180 Pro Gly Trp Lys Gly Pro Tyr Cys Thr Glu Pro Ile Cys Leu Pro Gly
181           195          200          205
183 Cys Asp Glu Gln His Gly Phe Cys Asp Lys Pro Gly Glu Cys Lys Cys
184           210          215          220
186 Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu Cys Ile Arg Tyr Pro
187   225          230          235          240
189 Gly Cys Leu His Gly Thr Cys Gln Gln Pro Trp Gln Cys Asn Cys Gln
190           245          250          255
192 Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp Leu Asn Tyr Cys Thr
193           260          265          270
195 His His Lys Pro Cys Lys Asn Gly Ala Thr Cys Thr Asn Thr Gly Gln
196           275          280          285
198 Gly Ser Tyr Thr Cys Ser Cys Arg Pro Gly Tyr Thr Gly Ala Thr Cys
199           290          295          300
201 Glu Leu Gly Ile Asp Glu Cys Asp Pro Ser Pro Cys Lys Asn Gly Gly
202   305          310          315          320
204 Ser Cys Thr Asp Leu Glu Asn Ser Tyr Ser Cys Thr Cys Pro Pro Gly
205           325          330          335
207 Phe Tyr Gly Lys Ile Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly
208           340          345          350

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/995,593

DATE: 12/06/2001

TIME: 11:51:35

Input Set : A:\9-068740.app

Output Set: N:\CRF3\12062001\I995593.raw

```

210 Pro Cys Phe Asn Gly Gly Arg Cys Ser Asp Ser Pro Asp Gly Gly Tyr
211          355                      360                      365
213 Ser Cys Arg Cys Pro Val Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys
214          370                      375                      380
216 Ile Asp Tyr Cys Ser Ser Ser Pro Cys Ser Asn Gly Ala Lys Cys Val
217 385                      390                      395                      400
219 Asp Leu Gly Asp Ala Tyr Leu Cys Arg Cys Gln Ala Gly Phe Ser Gly
220                      405                      410                      415
222 Arg His Cys Asp Asp Asn Val Asp Asp Cys Ala Ser Ser Pro Cys Ala
223                      420                      425                      430
225 Asn Gly Gly Thr Cys Arg Asp Gly Val Asn Asp Phe Ser Cys Thr Cys
226          435                      440                      445
228 Pro Pro Gly Tyr Thr Gly Arg Asn Cys Ser Ala Pro Val Ser Arg Cys
229          450                      455                      460
231 Glu His Ala Pro Cys His Asn Gly Ala Thr Cys His Glu Arg Gly His
232 465                      470                      475                      480
234 Arg Tyr Val Cys Glu Cys Ala Arg Gly Tyr Gly Gly Pro Asn Cys Gln
235          485                      490                      495
237 Phe Leu Leu Pro Glu Leu Pro Pro Gly Pro Ala Val Val Asp Leu Thr
238          500                      505                      510
240 Glu Lys Leu Glu Gly Gln Gly Gly
241          515                      520
244 <210> SEQ ID NO: 4
245 <211> LENGTH: 702
246 <212> TYPE: PRT
247 <213> ORGANISM: Homo sapiens
249 <400> SEQUENCE: 4
250 Ser Gly Val Phe Glu Leu Lys Leu Gln Glu Phe Val Asn Lys Lys Gly
251 1          5          10          15
253 Leu Leu Gly Asn Arg Asn Cys Cys Arg Gly Gly Ala Gly Pro Pro Pro
254          20          25          30
256 Cys Ala Cys Arg Thr Phe Phe Arg Val Cys Leu Lys His Tyr Gln Ala
257          35          40          45
259 Ser Val Ser Pro Glu Pro Pro Cys Thr Tyr Gly Ser Ala Val Thr Pro
260          50          55          60
262 Val Leu Gly Val Asp Ser Phe Ser Leu Pro Asp Gly Gly Gly Ala Asp
263 65          70          75          80
265 Ser Ala Phe Ser Asn Pro Ile Arg Phe Pro Phe Gly Phe Thr Trp Pro
266          85          90          95
268 Gly Thr Phe Ser Leu Ile Ile Glu Ala Leu His Thr Asp Ser Pro Asp
269          100         105         110
271 Asp Leu Ala Thr Glu Asn Pro Glu Arg Leu Ile Ser Arg Leu Ala Thr
272          115         120         125
274 Gln Arg His Leu Thr Val Gly Glu Glu Trp Ser Gln Asp Leu His Ser
275 130         135         140
277 Ser Gly Arg Thr Asp Leu Lys Tyr Ser Tyr Arg Phe Val Cys Asp Glu
278 145         150         155         160
280 His Tyr Tyr Gly Glu Gly Cys Ser Val Phe Cys Arg Pro Arg Asp Asp
281          165         170         175

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/995,593

DATE: 12/06/2001

TIME: 11:51:35

Input Set : A:\9-068740.app

Output Set: N:\CRF3\12062001\I995593.raw

```

283 Ala Phe Gly His Phe Thr Cys Gly Glu Arg Gly Glu Lys Val Cys Asn
284      180      185      190
286 Pro Gly Trp Lys Gly Pro Tyr Cys Thr Glu Pro Ile Cys Leu Pro Gly
287      195      200      205
289 Cys Asp Glu Gln His Gly Phe Cys Asp Lys Pro Gly Glu Cys Lys Cys
290      210      215      220
292 Arg Val Gly Trp Gln Gly Arg Tyr Cys Asp Glu Cys Ile Arg Tyr Pro
293 225      230      235      240
295 Gly Cys Leu His Gly Thr Cys Gln Gln Pro Trp Gln Cys Asn Cys Gln
296      245      250      255
298 Glu Gly Trp Gly Gly Leu Phe Cys Asn Gln Asp Leu Asn Tyr Cys Thr
299      260      265      270
301 His His Lys Pro Cys Lys Asn Gly Ala Thr Cys Thr Asn Thr Gly Gln
302      275      280      285
304 Gly Ser Tyr Thr Cys Ser Cys Arg Pro Gly Tyr Thr Gly Ala Thr Cys
305      290      295      300
307 Glu Leu Gly Ile Asp Glu Cys Asp Pro Ser Pro Cys Lys Asn Gly Gly
308 305      310      315      320
310 Ser Cys Thr Asp Leu Glu Asn Ser Tyr Ser Cys Thr Cys Pro Pro Gly
311      325      330      335
313 Phe Tyr Gly Lys Ile Cys Glu Leu Ser Ala Met Thr Cys Ala Asp Gly
314      340      345      350
316 Pro Cys Phe Asn Gly Gly Arg Cys Ser Asp Ser Pro Asp Gly Gly Tyr
317      355      360      365
319 Ser Cys Arg Cys Pro Val Gly Tyr Ser Gly Phe Asn Cys Glu Lys Lys
320      370      375      380
322 Ile Asp Tyr Cys Ser Ser Ser Pro Cys Ser Asn Gly Ala Lys Cys Val
323 385      390      395      400
325 Asp Leu Gly Asp Ala Tyr Leu Cys Arg Cys Gln Ala Gly Phe Ser Gly
326      405      410      415
328 Arg His Cys Asp Asp Asn Val Asp Asp Cys Ala Ser Ser Pro Cys Ala
329      420      425      430
331 Asn Gly Gly Thr Cys Arg Asp Gly Val Asn Asp Phe Ser Cys Thr Cys
332      435      440      445
334 Pro Pro Gly Tyr Thr Gly Arg Asn Cys Ser Ala Pro Val Ser Arg Cys
335      450      455      460
337 Glu His Ala Pro Cys His Asn Gly Ala Thr Cys His Glu Arg Gly His
338 465      470      475      480
340 Arg Tyr Val Cys Glu Cys Ala Arg Gly Tyr Gly Gly Pro Asn Cys Gln
341      485      490      495
343 Phe Leu Leu Pro Glu Leu Pro Pro Gly Pro Ala Val Val Asp Leu Thr
344      500      505      510
346 Glu Lys Leu Glu Gly Gln Gly Gly Pro Phe Pro Trp Val Ala Val Cys
347      515      520      525
349 Ala Gly Val Ile Leu Val Leu Met Leu Leu Leu Gly Cys Ala Ala Val
350      530      535      540
352 Val Val Cys Val Arg Leu Arg Leu Gln Lys His Arg Pro Pro Ala Asp
353 545      550      555      560
355 Pro Cys Arg Gly Glu Thr Glu Thr Met Asn Asn Leu Ala Asn Cys Gln

```

Use of n and / or Xaa has been detected in the Sequence Listing. Review the Sequence Listing to ensure a corresponding explanation is present in the <220> to <223> fields of each sequence using n or Xaa.

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/995,593

DATE: 12/06/2001

TIME: 11:51:36

Input Set : A:\9-068740.app

Output Set: N:\CRF3\12062001\I995593.raw

L:10 M:270 C: Current Application Number differs, Replaced Current Application Number
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:82 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:85 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:88 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:1
L:1871 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16
L:2187 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40
L:2190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40
L:2193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:40